VII.—*On* Globiocephalus Grayi, *nov. spec.*

By Dr. Hermann Burmeister.

[Plate II. figs. 2 & 3.]

Two months ago the public museum of Buenos Ayres received the skull of a large Dolphin of the subgenus *Globiocephalus*, which seems to belong to an unknown species inhabiting the southern parts of the Atlantic Ocean, as the skull was found on the shore of the State of Buenos Ayres. I venture to describe this new species under the name of my friend Dr. J. E. Gray, who has recently contributed so greatly, by his valuable investigations, to the increase of our knowledge of the Cetacea.

Compared with the skull of *Globiocephalus svineval* s. *melas*, as shown in the figures of this species given by Cuvier (Ossem. Foss. tome i. pl. xxi. fig. 11) and Gray (Catal. p. 316), this skull is somewhat larger in the anterior part of the nose, and not so large in the posterior part between the orbital arch. To show this difference, I here give the measurements of the new species corresponding with those of the European species given by Dr. Gray (*l. c.*):—

	in.	lin.
Entire length of the skull	25	0
Length of the nasal part	13	0
Length of the teeth-series	10	0
Length of under jaw	21	0
Width at notch	12	0
Width at orbit	14	6
Width of intermaxillaries	6	0
Width of middle of nose	8	6
Height of occiput	10	0

As the general form of the exterior of the skull is sufficiently shown by the accompanying figure (Pl. II. fig. 2), I will describe only the differences of its constituent bones. The greatest difference is shown in the form of the tip of the nose, which is much broader and more rounded in *Globiocephalus Grayi* than in *G. svineval*. This difference is combined with a totally different form of the intermaxillary bones, these being short, rounded at the anterior extremity, and then nearly parallel, with the outer margins not diverging posteriorly as in the European species. In the middle these bones, in my new species, are narrower and more excavated at the margin; and at their hinder parts they are rather more curved outwards. The part of the vomer which is visible between the intermaxillaries seems to be somewhat broader, and the small portion of the maxillaries, seen from above at the sides of the

vomer, much shorter. The narrow form of the anterior part of the intermaxillaries allows us to see a considerable portion of the maxillaries on all sides of the tip of the nose; these appear only as a narrow band in the European species. The form of the maxillaries, at their anterior extremity, is also different; they are here broader and shortly rounded, and nearly parallel on the outer margins. The orbital part is not so broad, and the hinder edge of the orbit not so prominent. On the other hand, the cerebral region of the skull is broader, and much more produced behind in my species.

The small surface of the frontal bones seen behind the maxillaries is comparatively broader, and the elevated margin of the parietals which separates the upper surface of the skull from the occipital surface is nearly in a straight line, a little undulated on each side, but by no means curved forwards as in the European species. In the latter the exterior margins of the occipital surface, which are also the hinder margins of the temporal groove, are inclined backward on both sides; but they are perfectly parallel and much more prominent in *G. Grayi*, so that the general form of the occipital surface in this species is rather a plane than a portion of a spherical curve as in the European species. Hence the occipital condyles are more prominent posteriorly in the former and more retracted in the latter.

Beneath, the general configuration of the skull is nearly the same in both species; but a very important difference is to be found in the length of the teeth-series. In the European species this series occupies only half the length of the margin of the maxillary, but in the new Argentine species nearly the whole margin, except only an extent of 2 inches at its hinder extremity. This difference is very remarkable, and is due to the greater size of the teeth, especially the anterior ones. The European species has generally twelve teeth on each side, in some cases fourteen, or, exceptionally, only eleven. My new species has only nine teeth on each side in both jaws; and these are of nearly equal size, except that the first is somewhat smaller: in the European species, the first five teeth are very small, increasing somewhat in size posteriorly; and the seven following ones also are not equal in size, but gradually increasing. All the teeth in *G. Grayi* are nearly of the same form, having a truncated molar surface and a very short prominent crown; more than two-thirds of each tooth is enclosed in the alveolus, terminating below in a conical root which is nearly closed, exhibiting only a very small opening in the middle (Pl. II. fig. 3, a tooth, half the natural size).

The lower jaw is rather strong. Each ramus is 21 inches in length, and 6 inches 4 lines in depth at the well-marked coro-

noid process. The symphysis extends 3 inches 6 lines; and the teeth-series occupies nearly one-half of the upper margin from the tip to the coronoid process, measuring 9 inches 4 lines in length, and the free part of the margin to the extremity of the coronoid process 10 inches.

I know nothing of the other parts of the skeleton.

On my first voyage across the Atlantic, I saw seven *Globiocephali* swimming near the vessel, in 10° N. lat., on the 2nd November, 1850 (see my 'Reise nach Brasilien,' Berlin, 1852, p. 43), and observed them for a long time. I suppose these animals would be of the same species as the one here described; and if so, their whole external appearance is identical with the figure given by Couch (Ann. Mag. Nat. Hist. 1st ser. vol. ix. 1842, pl. 6). But as I did not see the underside of the swimming animal, I cannot say whether this species has the white spot which is characteristic of the European animal.

VIII.—*On a new Volute.* By Prof. M'Coy.

[Plate II. fig. 1.]

Voluta Thatcheri (M'Coy). Pl. II. fig. 1.

Slender, elongate fusiform; greatest width (which is near the middle of the body-whorl) only half the length of the body-whorl; about ten tubercles on the penultimate whorl, slightly below the middle; only about seven on the shoulder of the body-whorl, from their being obsolete near the outer lip. Seven thick plaits on the columella, the two posterior smaller than the rest, which are nearly equal. Colour a white ground, with a row of elongate quadrangular spots on the suture and two broad spiral bands of hieroglyphic markings on the body-whorl, one just below the tubercles and the other near the anterior end; in front of the latter an irregular row of small quadrate spots; all the markings pale yellowish brown ("burnt-sienna" colour); traces of a yellowish reticulation between the bands.

Length of the last three whorls 2 inches 10 lines, width 1 inch 1½ line; length of penultimate and antepenultimate whorls together 6 lines.

I name this beautiful Volute after Mr. Charles M. Thatcher, of Melbourne, an enthusiastic and acute conchologist, who perceived the probable novelty of the species from the most obvious characters of the slender form and seven plaits to the pillar—a combination of characters separating it from all others I know. Mr. Thatcher has added the specimen to the National-Museum Collection at Melbourne. The spire is broken.

Habitat unknown.